

REMARKS

In the Office Action the Examiner noted that claims 1-28 and 43-44 are pending in the application. The Examiner allowed claims 2, 11-18, 20, and 25-28, objected to claim 9, and rejected claims 1, 3-8, 10, 19, 21-24, and 43-44. By this Amendment, claims 1, 19, and 43 have been amended, and new claim 45 has been added. No new matter has been presented. Thus, claims 1-28 and 43-45 are pending in the application. The Examiner's rejections are traversed below, and reconsideration of all rejected claims is respectfully requested.

Examiner's Response To Arguments

In items 4-8 on pages 2-4 of the Office Action the Examiner stated responses to the Applicants' traversals submitted on August 31, 2006. Below, the Applicants respectfully offer rebuttal, along with support therefore, to the Examiner's responses. The Examiner's responses, and the Applicants' rebuttal thereof, are directed to the Examiner's cited reference "System Time Management", by Cisco Systems, Inc., April 2000 (hereinafter referred to as "Cisco"). This reference is relied upon for all of the claim rejections.

In the August 31, 2006 Amendment, the Applicants asserted that Cisco does not disclose or suggest at least the feature of "a date-and-time setting request reception unit accepting a date-and-time setting request from any date-and-time manager before accepting a date-and-time setting request from a predetermined date-and-time manager, and accepting a date-and-time setting request only from the predetermined date-and-time manager after accepting a date-and-time setting request from the predetermined date-and-time manager." In support of this assertion, the Applicants stated:

[I]t is apparent from the disclosure of Cisco that the automatic updates from the NTP server are merely provided as a convenience to the user to keep the time on the switch updated. The updates are apparently never only accepted from the NTP server, because at any time the user can go in and manually set the system time (page 1). "Generally, you do not need to set the system clock if the system is synchronized by a valid outside timing mechanism such as NTP. If no other time source is available, you should manually set the time" (page 1). Therefore, it is clear that at any time a user can go in and configure the system clock. While it is true that an NTP server may be set to update the system clock on an automatic basis, it is also quite clear that a user can also manually configure the clock at any time. In fact, the Applicants respectfully submit that it is well known in the art that a user using a system such as that disclosed in Cisco may at any time manually configure the system clock at the local terminal, and at least two of the pages of Cisco detail exactly how a user performs the manual configuration. While the Examiner has cited the language in Cisco that discloses

allowing only NTP servers that provide authentication to make the switch updates, the user is still allowed to manually configure the switch, regardless of whether there is an authenticated NTP server that will automatically update the switch at a later time.

Because a user can update the system clock (switch) at any time in the disclosure of Cisco, there is no way to control a date-and-time apparatus such that a date-and-time setting request is only received from a predetermined date-and-time manager. Therefore, sensitive time and date material could be forged at the local terminal by a user using the apparatus of Cisco. This is in direct contrast to claim 1 of the present application, in which only date-and-time setting requests from the predetermined date-and-time manager are accepted after accepting a date-and-time setting request from the predetermined date-and-time manager.

In response to the Applicants' statement that the user can manually set the system time, the Examiner stated that "the user is not considered a date-and-time manager, but rather the NTP server is." The Applicants respectfully submit that this could not be considered a reasonable statement by anyone skilled in the art. It is quite obvious from the disclosure of Cisco that the user manually sets the time using the **Set Current Time** tab selected from the **System Time Management** window (see the section of Cisco entitled "Manually Setting the System Time"). Through this System Time Management window, the user is able to manually set the time and date for the system at any time. Therefore, the user in Cisco is using a date-and-time manager, which is obvious and inherent throughout the disclosure. By stating that the user himself is not considered a date-and-time manager, the Examiner seems to be suggesting that the user does not have to use the System Time Management window to set the time and date, but rather is able to omnipotently set the time and date without the aid of hardware and/or software support. However, it is quite apparent to those skilled in the art that the user in Cisco is indeed using a date-and-time manager to set the date and time, and further is able to do so at will. This potentially bad behavior can be avoided with the apparatus and system of the present claimed invention.

Also, regarding the Applicants' statement that the user in Cisco is free to change the date and time at will, the Examiner stated:

Applicants' claim is not read such that there is absolutely no other means to set the date-and-time setting other than from a predetermined date-and-time manager, as this limitation would not be enabled. This is because there is no way to prove (and hence claim) that the system is perfect, and hence that there is no way to set the date-and-time setting outside of the intended function.

The Applicants respectfully disagree with the Examiner's statement for a number of reasons. First, claim 1 unequivocally recites "accepting a date-and-time setting request **only**

from the predetermined date-and-time manager” (emphasis added). In other words, a user is not able to change the date and time of the system, and therefore the validity of a signature-with-time-stamp is ensured. As stated quite clearly in at least Lines 18-21 on page 24 of the present application, “the date-and-time management devices of the users have to be protected by cases, etc. to prevent the set time from being changed by respective users.” Thus, it is clear that, at the very least, users are only able to receive date-and-time settings, and are not able to adjust the settings themselves. This is supported throughout the specification, and is recited in the claim language cited above. Therefore, the Applicants respectfully submit that the Examiner’s statement that “this limitation would not be enabled” is not correct.

Further, regarding the Examiner’s statement that there is no way to prove that the system is perfect, and therefore the limitation is not enabled, the Applicants respectfully submit that there is no such requirement imposed upon the Applicants. Regarding the enablement requirement, which is that the specification describe how to make and how to use the invention, MPEP §2164 states that the purpose of the requirement that the specification describe the invention in such terms that one skilled in the art can make and use the claimed invention is to ensure that the invention is communicated to the interested public in a meaningful way. The information contained in the disclosure of an application must be sufficient to inform those skilled in the relevant art how to both make and use the claimed invention. There is no requirement of the “perfect system” described by the Examiner. The application describes not allowing date-and-time management devices of users below the date-and-time management device at the highest hierarchical level to perform a setting operation. Hence, the claim feature of “accepting a date-and-time setting request **only** from the predetermined date-and-time manager” is certainly enabled, and further does not allow other means to set the date and time. Furthermore, as also stated in MPEP §2164, when the subject matter is not in the specification portion of the application as filed but is in the claims, the limitation in and of itself may enable one skilled in the art to make and use the claim containing the limitation. Therefore, even if the feature were not enabled in the specification, and the Applicants respectfully submit that it is, then the feature would still be enabling to one skilled in the art, who would recognize both the purpose and method employed to achieve that purpose.

The Examiner stated that the claim is read in light of the specification and intended features, “such that reasonable measure are taken to ensure that once a date-and-time setting request is received from a predetermined date-and-time manager, only requests from that manager are accepted.” However, no such “reasonable measures” described by the Examiner are the focus of the application. Rather, as stated above, users are prevented from changing

the time and date of the system. Therefore, it is respectfully submitted that Cisco does not disclose, suggest, or even contemplate “a date-and-time setting request reception unit accepting a date-and-time setting request from any date-and-time manager before accepting a date-and-time setting request from a predetermined date-and-time manager, and accepting a date-and-time setting request only from the predetermined date-and-time manager after accepting a date-and-time setting request from the predetermined date-and-time manager.” Thus, as also stated below in this Amendment, it is respectfully submitted that the presently recited claims patentably distinguish over the Examiner’s cited references.

Claim Objections

In item 10 on page 4 of the Office Action the Examiner rejected claims 1 and 3-10 because of alleged informalities. The Examiner stated that “clock unit setting” should be replaced with “clock unit” in claim 1.

By this Amendment, claim 1 has been amended to correct the error recognized by the Examiner. Therefore, the Applicants respectfully request the withdrawal of the Examiner’s objections to claims 1 and 3-10 (which depend from claim 1).

Claim Rejections Under 35 USC §102

In item 13 on page 5 of the Office Action the Examiner rejected claims 1 and 3 under 35 U.S.C. §102(a) as being anticipated by “System Time Management” by Cisco Systems, Inc., April 2000 (hereinafter referred to as “Cisco”). The Applicants respectfully traverse the Examiner’s rejections of these claims.

Claim 1 of the present application recites “a date-and-time setting request reception unit accepting a date-and-time setting request from any date-and-time manager before accepting a date-and-time setting request from a predetermined date-and-time manager, and accepting a date-and-time setting request only from the predetermined date-and-time manager, after accepting a date-and-time setting request from the predetermined date-and-time manager, so that a user of the date-and-time management apparatus is prevented from inputting the date-and-time setting request.” The Applicants respectfully submit that Cisco does not disclose or suggest at least these features of claim 1.

Cisco discloses a system time management window which allows a user to manually configure the time on a switch, or allows the user to configure NTP so that the switch requests

time updates from an NTP server or receives updates automatically from an NTP broadcast server (page 1). The Examiner stated that Cisco discloses "accepting a date-and-time setting request only from the specified date-and-time manager/authenticated NTP server after accepting a date-and-time setting request from the specified date-and-time manager/authenticated NTP server." However, it is apparent from the disclosure of Cisco that the automatic updates from the NTP server are merely provided as a convenience to the user to keep the time on the switch updated. The updates are apparently never only accepted from the NTP server, because at any time the user can go in and manually set the system time (page 1) through the system's System Time Management window (which is a date-and-time manager of the user's apparatus). "Generally, you do not need to set the system clock if the system is synchronized by a valid outside timing mechanism such as NTP. If no other time source is available, you should manually set the time" (page 1). Therefore, it is clear that at any time a user can go in and configure the system clock through the date-and-time management device. While it is true that an NTP server may be set to update the system clock on an automatic basis, it is also quite clear that a user can also manually configure the clock at any time. In fact, the Applicants respectfully submit that it is well known in the art that a user using a system such as that disclosed in Cisco may at any time manually configure the system clock at the local terminal, and at least two of the pages of Cisco detail exactly how a user performs the manual configuration. While the Examiner has cited the language in Cisco that discloses allowing only NTP servers that provide authentication to make the switch updates, the user is still allowed to manually configure the switch through the System Time Management tool, regardless of whether there is an authenticated NTP server that will automatically update the switch at a later time.

Because a user can update the system clock (switch) at any time in the disclosure of Cisco, using the System Time Management window, there is no way to control a date-and-time apparatus such that a date-and-time setting request is only received from a predetermined date-and-time manager, and not changed by the user. Therefore, sensitive time and date material could be forged at the local terminal by a user using the apparatus of Cisco. This is in direct contrast to claim 1 of the present application, in which only date-and-time setting requests from the predetermined date-and-time manager are accepted after accepting a date-and-time setting request from the predetermined date-and-time manager, so that a user of the date-and-time management apparatus is prevented from inputting the date-and-time setting request.

Therefore, Cisco does not disclose or suggest at least the feature of "accepting a date-and-time setting request only from the predetermined date-and-time manager, after accepting a date-and-time setting request from the predetermined date-and-time manager, so that a user of

the date-and-time management apparatus is prevented from inputting the date-and-time setting request." Accordingly, Cisco does not disclose every element of the Applicants' claim 1. In order for a reference to anticipate a claim, the reference must teach each and every element of the claim (MPEP §2131). Therefore, since Cisco does not disclose the features recited in independent claim 1, as stated above, it is respectfully submitted that claim 1 patentably distinguishes over Cisco, and withdrawal of the §102(a) rejection is earnestly and respectfully solicited.

Claim 3 depends from claim 1 and includes all of the features of that claim plus additional features which are not disclosed or suggested by Cisco. Therefore, it is respectfully submitted that claim 3 also patentably distinguishes over Cisco.

Claim Rejections Under 35 USC §103

In item 15 on pages 6-8 of the Office Action the Examiner rejected claims 4-6, 19, and 21-22 under 35 U.S.C. §103(a) as being unpatentably over Cisco, as applied to claims 1 and 3, and further in view of Handbook of Applied Cryptography, by Menezes et al. (hereinafter referred to as "Menezes"). The Applicants respectfully traverse the Examiner's rejections of these claims.

As discussed in the previous section of this Amendment, claim 1 patentably distinguishes over Cisco. Further, as Menezes apparently merely discloses including non-repeating values such as sequence numbers in protocol messages to prevent replay attacks, Menezes does not cure the deficiencies of Cisco in regard to claim 1. Further, claims 4-6 depend from claim 1 and include all of the features of that claim plus additional features which are not disclosed or suggested by the cited references. Therefore, it is respectfully submitted that claims 4-6 also patentably distinguish over the cited references.

Claim 19 of the present application recites "accepting a date-and-time setting request only from the predetermined date-and-time manager, after accepting a date-and-time setting request from the predetermined date-and-time manager, so that a user of the signature generation apparatus is prevented from inputting the date-and-time setting request", which is similar to the previously discussed feature recited in claim 1. As discussed above in regard to claim 1, at least this feature of claim 19 is not disclosed or suggested by the cited references. Further, claims 21-22 depend from claim 19 and include all of the features of that claim plus additional features which are not disclosed or suggested by the cited references. Therefore, it is

respectfully submitted that claims 19 and 21-22 also patentably distinguish over the cited references.

In item 16 on page 8 of the Office Action the Examiner rejected claim 7 under 35 U.S.C. §103(a) as being unpatentable over Cisco, as applied to claim 3. The Applicants respectfully traverse the Examiner's rejection of this claim.

As discussed in the previous section of this Amendment, claim 1 patentably distinguishes over Cisco. Further, claim 7 depends from claim 1 and includes all of the features of that claim plus additional features which are not disclosed or suggested by Cisco. Therefore, it is respectfully submitted that claim 7 also patentably distinguishes over Cisco.

In item 17 on page 9 of the Office Action the Examiner rejected claims 8 and 10 under 35 U.S.C. §103(a) as being unpatentable over Cisco, as applied to claim 1, and further in view of U.S. Patent No. 6,157,957, issued to Berthaud (hereinafter referred to as "Berthaud"). The Applicants respectfully traverse the Examiner's rejections of claims 8 and 10.

As discussed in the previous section of this Amendment, claim 1 patentably distinguishes over Cisco. Further, as Berthaud apparently merely discloses calculating correction information/conversion function information to achieve a pre-specified precision of a clock unit, Berthaud does not cure the deficiencies of Cisco in regard to claim 1. Further, claims 8 and 10 depend from claim 1 and include all of the features of that claim plus additional features which are not disclosed or suggested by the cited references. Therefore, it is respectfully submitted that claims 8 and 10 also patentably distinguish over the cited references.

In item 18 on pages 9-10 of the Office Action the Examiner rejected claim 23 under 35 U.S.C. §103(a) as being unpatentable over Cisco and Menezes, as applied to claim 19, and further in view of U.S. Patent No. 5,444,780, issued to Hartman, Jr. (hereinafter referred to as "Hartman"). The Applicants respectfully traverse the Examiner's rejections of claim 23.

As previously discussed in this section of the Amendment, claim 19 patentably distinguishes over Cisco and Menezes. Further, as Hartman apparently merely discloses encrypting an authenticated code using a secret key, a time value, and an authenticated device, Hartman does not cure the deficiencies of Cisco and Menezes in regard to claim 19. Therefore, as claim 23 depends from claim 19, it is respectfully submitted that claim 23 patentably distinguishes over the cited references.

In item 19 on pages 10-11 of the Office Action the Examiner rejected claim 24 under 35 U.S.C. §103(a) as being unpatentable over Cisco and Menezes, as applied to claims 19, and

further in view of U.S. Patent No. 6,199,169, issued to Voth (hereinafter referred to as "Voth"). The Applicants respectfully traverse the Examiner's rejection of claim 24.

As previously discussed in this section of the Amendment, claim 19 patentably distinguishes over Cisco and Menezes. Further, as Voth apparently merely discloses sending adjustment date and time information and frequency of time change information to update distributed time devices, Voth does not cure the deficiencies of Cisco and Menezes in regard to claim 19. Therefore, as claim 24 depends from claim 19, it is respectfully submitted that claim 24 patentably distinguishes over the cited references.

In item 20 on pages 11-12 of the Office Action the Examiner rejected claims 43-44 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,717,955, issued to Swinehart (hereinafter referred to as "Swinehart") in view of Cisco. The Applicants respectfully traverse the Examiner's rejections of claims 43-44.

Claim 43 of the present application recites "accepting subsequent setting requests only from the specified management device after accepting the prioritized setting request from the specified management device, so that a user of the date-and-time management system is prevented from inputting the setting request." The Applicants respectfully submit that neither Swinehart nor Cisco discloses or suggests at least this feature of claim 43.

The Examiner characterized the user agents of Swinehart as the management devices of claim 43, and the device agents of Swinehart as the user devices. In Swinehart, the device which corresponds to the device agent is a device which performs a function such as light control when left to its default purpose, but may be used for other purposes by a user when chosen by that user through its user agent. Therefore, the Examiner has incorrectly characterized the user agent of Swinehart as a management device, when it would more reasonably correspond to a user device. In other words, in the process in which the Examiner stated that the device accepts subsequent settings requests "only from the specified management device/UserAgent claiming ownership after accepting the prioritized setting request from the specified management device/UserAgent claiming ownership (col. 11, lines 44-46)", it is quite apparent that this is completely contrary to the system recited in claim 43 of the present application. To wit, in Swinehart the device acts according to a management device/device agent when left to its default function, and then may be placed under exclusive control of the user/UserAgent when a user wants to take control of the device. Therefore, rather than allowing only the specified management device set the date and time, and not allowing the same of a user of the date-and-time management system, as recited in claim 43, Swinehart allows the user

to assume complete control of the device. Therefore, claim 43 quite clearly patentably distinguishes over Swinehart. Further, as discussed thoroughly throughout this Amendment, Cisco does not cure this deficiency of Swinehart in regard to claim 43. Also, claim 44 depends from claim 43 and includes all of the features of that claim plus additional features which are not disclosed or suggested in the cited references. Therefore, it is respectfully submitted that claims 43-44 also patentably distinguish over the cited references.

Allowable Subject Matter

In item 22 on page 12 of the Office Action the Examiner objected to claim 9 as being dependent upon a rejected base claim, but indicated that claim 9 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As discussed in the previous sections of this Amendment, claim 1 patentably distinguishes over the cited references. Further, claim 9 depends from claim 1 and includes all of the features of that claim plus additional features which are not disclosed or suggested by the cited references. Therefore, it is respectfully submitted that claim 9 patentably distinguishes over the cited references, and the Applicants further respectfully request the withdrawal of the Examiner's objection to claim 9.

New Claim 45

New claim 45 is drawn to a date-and-time management apparatus capable of inputting a date-and-time setting request from each of a plurality of date-and-time manager servers, wherein a date-and-time setting authority of the predetermined date-and-time manager server cannot be changed after accepting the date-and-time setting request from the predetermined date-and-time manager server.

As previously discussed, in Cisco a server administrator configures the NTP and conducts the setting (including security) so as to accept the date-and-time setting from the specified servers. After the setting by the administrator, the date-and-time setting cannot be changed by servers other than those specified by the administrator. However, the server administrator can later modify the setting so as to accept the date-and-time setting from servers other than those specified ones. Therefore, the administrator is able to override the exclusive setting of those specified servers at any time of his choosing.

This is in direct contrast to the apparatus recited in new claim 45, as once the date-and-time setting is performed by the predetermined server in a state after the period in which any of the date-and-time manager servers could input the date-and-time setting request, the setting state is changed automatically without an operation by a person so that the date-and-time setting can only be accepted from the predetermined server. In other words, the setting authority is changed. Once the setting authority is changed, no user is able to alter the date-and-time setting, even the owner of the date-and-time management apparatus. Therefore, the Applicants respectfully submit that new claim 45 patentably distinguishes over the cited references.

Summary

In accordance with the foregoing, claims 1, 19, and 43 have been amended, and new claim 45 has been added. No new matter has been presented. Thus, claims 1-28 and 43-45 are pending and under consideration.

There being no further outstanding objections or rejections, it is respectfully submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 03/21/07

By: Thomas L. Jones
Thomas L. Jones
Registration No. 53,908

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501